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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/584,259	05/31/2000	Marcos N. Novaes	POU9-2000-0003-USI	5275

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09/05/2003

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EXAMINER

WON, YOUNG N

ART UNIT

PAPER NUMBER

2155

DATE MAILED: 09/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

3

Office Action Summary

Application No.

09/584,259

Applicant(s)

NOVAES ET AL.

Examiner

Young N Won

Art Unit

2155

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 May 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-48 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-48 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-48 have been examined and are pending with this action.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1-48 are rejected under 35 U.S.C. 102(e) as being anticipated by Moiin (US 6108699 A).

INDEPENDENT:

As per claim 1, 3, and 5, Moiin teaches a method, a system (see title), and at least one program storage device readable by a machine, tangibly embodying at least one program of instructions executable by the machine to perform a method (see col.4, lines 25-28), of managing processing groups of a distributed computing environment (see title), said method comprising: comparing at least a portion of a state of a prospective member of a processing group with at least a portion of a group state of the processing group (see col.1, lines 60-61 and col.5, lines 18-27); updating said at least a portion of the state of said prospective member, should said comparing indicate a difference (see Fig.4; col.5, line 56 to col.6, line 20; and col.8, lines 56-65); and joining said prospective member to said processing group (see col.6, lines 17-20).

As per claims 22, 24, and 26, Moiin teaches a method, a system (see title), and at least one program storage device readable by a machine, tangibly embodying at least one program of instructions executable by the machine to perform a method (see col.4, lines 25-28), of managing processing groups of a distributed computing environment (see title), the system comprising: means for detecting a failure of at least one member of a processing group (see col.2, lines 40-42); means for quiescing activity to a group state of the processing group (see col.11, lines 14-23); and means for updating at least a portion of the group state in order to exclude the at least one member of the processing group (see col.1, lines 60-61 & 65-67 and col.2, lines 51-54).

As per claims 28, 35, and 42, Moiin teaches a method, a system (see title), and at least one program storage device readable by a machine, tangibly embodying at

Art Unit: 2155

least one program of instructions executable by the machine to perform a method (see col.4, lines 25-28), of managing processing groups of a distributed computing environment (see title), the method comprising: joining a prospective member to an inactive processing group (see col.6, lines 17-20); comparing at least a portion of a state of the prospective member with at least a portion of a group state of the processing group (see col.1, lines 60-61 and col.5, lines 18-27); and updating the at least a portion of the group state (see Fig.4; col.5, line 56 to col.6, line 20; and col.8, lines 56-65).

DEPENDENT:

As per claims 2, 4, and 6, Moin teaches of further comprising: quiescing activity to said group state; and retrieving said group state after quiescing activity, for use in said comparing (see claim 1 and 22 rejection above).

As per claims 7, 12, 17, 29, 36 and 43, Moin further teaches wherein the comparing comprises comparing a sequence number of the prospective member with a sequence number of the processing group (see col.5, lines 24-26 & 32-46 and col.6, lines 13-17).

As per claims 8, 13, 18, 30, 37, and 44, Moin further teaches wherein the sequence number of the prospective member is less than the sequence number of the processing group (see col.5, lines 36-38: it is inherent that a prospective member does not belong to a group, thus has a sequence number less than the group sequence number, that has more than one member to form such a group), and wherein the

updating comprises updating the sequence number of the prospective member with the sequence number of the processing group (see claim 1 rejection).

As per claims 9, 14, and 19, Moin teaches of further comprising determining an activity status of the processing group prior to the updating, wherein updating the sequence number of the prospective member comprises updating if the processing group is active.

As per claims 10, 15, and 20, Moin teaches of further comprising updating at least a portion of the state of the processing group after the joining (see col.1, lines 60-61 and Fig.4; col.5, line 56 to col.6, line 20; and col.8, lines 56-65).

As per claims 11, 16, and 21, Moin further teaches wherein the updating at least a portion of the state of the processing group after the joining comprises updating the sequence number of the processing group (see claim 8 rejection above).

As per claims 23, 25, and 27, Moin further teaches wherein the quiescing and updating are performed if the processing group is active (inherent) and the at least one member of the processing group comprises less than a majority of the processing group (see claim 8 rejection above).

As per claims 31, 38, and 45, Moin further teaches wherein the updating comprises updating the sequence number of the group state with a highest sequence number of the members of the processing group if a quorum of the processing group exists (see col.6, lines 13-17).

As per claims 32, 39, and 46, Moin teaches of further comprising activating the processing group (see col.6, lines 17-20).

As per claims 33, 40, and 47, Moin further teaches wherein the activating comprises updating a local copy of the group state for any member of the processing group whose sequence number is less than a current sequence number of the processing group (see col.1, lines 60-61 and col.6, lines 13-17).

As per claims 34, 41, and 48, Moin does not explicitly teaches wherein the activating further comprises changing the group state to active if a majority of the members of the processing group have a sequence number matching the current sequence number and none of the members has aborted, but since he does teach that "nodes of a cluster which has quorum are never in disagreement regarding the state of the cluster" (see col.1, lines 60-61), it would be inherent that activity is a result of all matching sequence number.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Young N Won whose telephone number is 703-605-4241. The examiner can normally be reached on M-Th: 8AM-6PM.

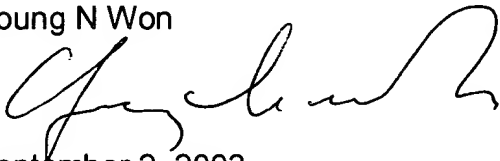
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain T Alam can be reached on 703-308-6662. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Application/Control Number: 09/584,259
Art Unit: 2155


Page 7

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Young N Won



September 2, 2003



HOSAIN ALAM
SUPERVISORY PATENT EXAMINER